



This circular will be sent regularly to all who apply for it.

United States Department of Agriculture,

WASHINGTON, D. C., *February 28, 1917.*

MONTHLY LIST OF PUBLICATIONS.

[FEBRUARY, 1917.]

READ CAREFULLY BEFORE ORDERING.

A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Editor and Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

After this department's supply is exhausted, publications can still be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., but by purchase only, and at the prices noted herein.

Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

SPECIAL NOTICE.

Before mailing your request be sure and see that your name and complete post-office address (street number or rural route number as the case may be) is attached.

FARMERS' BULLETINS—FOR FREE DISTRIBUTION.

NOTE.—The department's supply of the current numbers of Farmers' Bulletins is ordinarily sufficient to make it possible to send them free to all applicants. They are also for sale at 5 cents per copy.

Goose Raising. By Harry M. Lamon and Alfred R. Lee, of the Animal Husbandry Division. Pp. 16, figs. 8. Contribution from the Bureau of Animal Industry. February, 1917. (Farmers' Bulletin 767.)

For general distribution.

Feeding and Management of Dairy Calves and Young Dairy Stock. By W. K. Brainerd and H. P. Davis, Dairy Division. Pp. 19, figs. 5. Contribution from the Bureau of Animal Industry. February, 1917. (Farmers' Bulletin 777.)

Of especial interest to those engaged in the dairy business.

Powder-Post Damage by Lyctus Beetles to Seasoned Hardwood. By A. D. Hopkins, Forest Entomologist, and T. E. Snyder, Specialist in Forest Entomology. Pp. 20, figs. 13. Contribution from the Bureau of Entomology. January, 1917. (Farmers' Bulletin 778.)

Systems of control which adapt certain features in business management to the habits and seasonal history of Lyctus powder-post beetles have been perfected by the Bureau of Entomology and have been adopted by many manufacturers and dealers in seasoned hardwood products, and there has been a marked decrease in powder-post losses since 1906. The object of this bulletin is to describe the methods which have been found effective in preventing these losses and to induce a more general adoption of them throughout the United States, as well as to show the character and extent of the damage.

How to Select a Sound Horse. By H. H. Reese, Animal Husbandman, Animal Husbandry Division. Pp. 27, figs. 36. Contribution from the Bureau of Animal Industry. February, 1917. (Farmers' Bulletin 779.)

Suitable for general distribution.

Tuberculosis of Hogs. By John R. Mohler, Assistant Chief, Bureau of Animal Industry, and Henry J. Washburn, Senior Bacteriologist, Pathological Division. Pp. 20, figs. 3. Contribution from the Bureau of Animal Industry. February, 1917. (*Farmers' Bulletin* 781.)

Is a revision of Bureau of Animal Industry Circular 201, and is intended to assist hog-raisers in exterminating a dangerous disease.

Anthrax or Charbon. By Henry J. Washburn, Senior Bacteriologist, Pathological Division. Pp. 16. Contribution from the Bureau of Animal Industry. February, 1917. (*Farmers' Bulletin* 784.)

Supersedes Farmers' Bulletin 439 on the same subject, and is intended to give valuable information to all who have anything to do with domestic animals.

Seed-Flax Production. By Charles H. Clark, Assistant Agronomist in charge of Flax Investigations. Pp. 19, figs. 9. Contribution from the Bureau of Plant Industry. February, 1917. (*Farmers' Bulletin* 785.)

Suitable for distribution in the Dakotas, Minnesota, and Montana.

Fall-Sown Grains in Maryland and Virginia. By T. R. Stanton, Scientific Assistant, Office of Cereal Investigations. Pp. 23, figs. 5. Contribution from the Bureau of Plant Industry. February, 1917. (*Farmers' Bulletin* 786.)

Suitable for distribution in Delaware, Maryland, Virginia, and West Virginia.

Mushroom Pests and How to Control Them. By C. H. Popenoe, Entomological Assistant, Truck Crop and Stored Product Insect Investigations. Pp. 16, figs. 6. Contribution from the Bureau of Entomology. February, 1917. (*Farmers' Bulletin* 789.)

Of interest to growers of mushrooms.

Citrus-Fruit Improvement. How to Secure and Use Tree-Performance Records. By A. D. Shamel, Physiologist in Charge of Fruit-Improvement Investigations, Office of Horticultural and Pomological Investigations. Pp. 16, figs. 4. Contribution from the Bureau of Plant Industry. February, 1917. (*Farmers' Bulletin* 794.)

Of interest to all citrus-fruit growers.

DEPARTMENT BULLETINS—TECHNICAL.

The publications listed below are technical or scientific treatises or bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts. However, to insure prompt receipt, remit price to the Superintendent of Documents.

Public-Road Mileage and Revenues in the Southern States, 1914. Prepared jointly by the Division of Road Economics of the Office of Public Roads and Rural Engineering, and State Collaborators. Pp. 123. Contribution from the Office of Public Roads and Rural Engineering. Feb. 20, 1917. (*Department Bulletin* 387.) Price, 15 cents.

A compilation showing roads, mileage of improved and unimproved roads, sources and amounts of road revenues, bonds issued and outstanding, and a description of the systems and other factors affecting road improvement in each State.

Western Yellow Pine in Oregon. By Thornton T. Munger, Forest Examiner. Pp. 48, pls. 7. Contribution from the Forest Service. (*Professional Paper.*) Feb. 6, 1917. (*Department Bulletin* 418.) Price, 15 cents.

A technical description of this species of pine, with methods of logging, planting, utilization, and reproduction.

The Potato Tuber Moth. By J. E. Graf, Entomological Assistant, Truck Crop and Stored Product Insect Investigations. Pp. 56, figs. 45, map. Contribution from the Bureau of Entomology. (*Professional Paper.*) Feb. 6, 1917. (*Department Bulletin* 427.) Price, 15 cents.

Is of interest to entomologists and to potato growers, especially in the warmer sections of the country.

Life History of the Codling Moth in the Pecos Valley, N. Mex. By A. L. Quaintance, Entomologist in Charge of Deciduous Fruit Insect Investigations, and E. W. Geyer, Scientific Assistant. Pp. 90, figs. 17. Contribution from the Bureau of Entomology. (*Professional Paper.*) Feb. 28, 1917. (*Department Bulletin* 429.) Price, 15 cents.

A technical description of the habits of this insect, and of interest to entomologists generally.

Sacbrood. By G. F. White, Expert, Engaged in the Investigation of Bee Diseases. Pp. 55, pls. 4, figs. 33. Contribution from the Bureau of Entomology. (Professional Paper.) Feb. 9, 1917. (Department Bulletin 431.) Price, 10 cents.

Of interest to beekeepers generally.

Changes in Fresh Beef During Cold Storage Above Freezing. By Ralph Hoagland, Charles N. McBryde, and Wilmer C. Powick, of the Biochemic Division. Pp. 100, figs. 2. Contribution from the Bureau of Animal Industry. (Professional Paper.) Feb. 15, 1917. (Department Bulletin 433.) Price, 10 cents.

A study of the commercial practices in the cold storage of fresh beef and the effects of same upon the meat, and is of interest to butchers and meat packers generally.

The Desert Corn Flea-Beetle. By V. L. Wildermuth, Entomological Assistant, Cereal and Forage Insect Investigations. Pp. 23, figs. 7. Contribution from the Bureau of Entomology. (Professional Paper.) Feb. 7, 1917. (Department Bulletin 436.) Price, 5 cents.

A study of the habits, life history, and methods of controlling this insect, and of especial interest to farmers in the southern parts of California, Arizona, and New Mexico.

The Navel Orange of Bahia, With Notes on Some Little-Known Brazilian Fruits. By P. H. Dorsett, A. D. Shamel, and Wilson Popenoe, Agricultural Explorers, Office of Foreign Seed and Plant Introduction. Pp. 35, pls. 24, fig. 1. Contribution from the Bureau of Plant Industry. Feb. 10, 1917. (Department Bulletin 445.) Price, 20 cents.

Of interest to growers and shippers of tropical fruits.

Separation and Identification of Food-Coloring Substances. By W. E. Mathewson, Assistant Chemist. Pp. 56. Contribution from the Bureau of Chemistry. (Professional Paper.) Feb. 15, 1917. (Department Bulletin 448.) Price, 10 cents.

This bulletin will be of interest chiefly to chemists engaged in food analysis.

Marketing Creamery Butter. By Roy C. Potts, Specialist in Marketing Dairy Products, and H. F. Meyer, Assistant in Marketing Dairy Products. Pp. 38, figs. 17. Contribution from the Office of Markets and Rural Organization. Feb. 5, 1917. (Department Bulletin 456.) Price, 10 cents.

Should be of special interest to manufacturers and distributors of creamery butter in the United States and of general interest to dairy farmers who sell cream to creameries.

Irrigation in Florida. By F. W. Stanley, Irrigation Engineer. Pp. 62, pls. 6, figs. 10. Contribution from the Office of Public Roads and Rural Engineering. Feb. 16, 1917. (Department Bulletin 462.) Price, 15 cents.

A study of the need of, and systems of, irrigation in Florida. Of interest to truck and fruit growers in Florida.

Earth, Sand-Clay, and Gravel Roads. By Charles H. Moorefield, Senior Highway Engineer. Pp. 68, pls. 5, figs. 24. Contribution from the Office of Public Roads and Rural Engineering. Feb. 21, 1917. (Department Bulletin 463.) Price, 15 cents.

Describes methods of building and maintenance; also contains typical specifications for such roads.

Propagation of Wild-Duck Foods. By W. L. McAtee, Assistant Biologist. Pp. 40, figs. 35. Contribution from the Bureau of Biological Survey. Feb. 23, 1917. (Department Bulletin 465.) Price, 10 cents.

Is for general distribution among persons and organizations interested in the protection, preservation, and propagation of waterfowl. It supersedes Biological Survey Circular No. 81, dealing with wild rice, wild celery, and pondweeds; and Department Bulletin No. 58, dealing with delta potato, wapato, chufa, wild millet, and banana waterlily.

Production of Sugar in the United States and Foreign Countries. By Perry Elliott, Division of Crop Records. Pp. 70. Contribution from the Bureau of Crop Estimates. Feb. 12, 1917. (Department Bulletin 473.) Price, 10 cents.

A concise account of the sugar production of the United States and of practically all foreign countries. It is intended for general circulation.

True Mahogany. By C. D. Mell, Forest Examiner. Pp. 24, pls. 3, figs. 4. Contribution from the Forest Service. (Professional Paper.) Feb. 9, 1917. (Department Bulletin 474.) Price, 5 cents.

A technical description of this wood, with a statement showing supply, uses, and methods of logging.

Farming in the Bluegrass Region. By J. H. Arnold, Agriculturist, and Frank Montgomery, Scientific Assistant. Pp. 29, figs. 13. Contribution from the Office of Farm Management, Office of the Secretary. Feb. 19, 1917. (Department Bulletin 482.) Price, 5 cents.

A study of the organization and management of 178 farms in Central Kentucky.

Statistics of Fruits in Principal Countries; Production, Exports, and Imports for the United States and Foreign Countries. By H. D. Ruddiman, Division of Crop Records. Pp. 40. Contribution from the Crop Estimates. Feb. 14, 1917. (Department Bulletin 483.) Price, 5 cents.

Contains a brief survey of the fruit industry in principal countries. While intended for general distribution to the public, it is of especial interest to fruit growers and dealers.

Experiments in the Disposal of Irrigated Crops Through the Use of Hogs. By James A. Holden, Assistant, Office of Western Irrigation Agriculture. In cooperation with the Bureau of Animal Industry. Pp. 27, figs. 3. Contribution from the Bureau of Plant Industry and the Bureau of Animal Industry. Feb. 26, 1917. (Department Bulletin 488.) Price, 5 cents.

Of interest to irrigation farmers generally.

An Economic Study of Farming in Sumter County, Ga. By H. M. Dixon, Assistant Agriculturist, and H. W. Hawthorne, Scientific Assistant. Pp. 64, figs. 6. Contribution from the Office of Farm Management, Office of the Secretary. (Professional Paper.) Feb. 10, 1917. (Department Bulletin 492.) Price, 10 cents.

A report on an exhaustive study of farming in a representative county in the cotton belt and is of interest to cotton growers especially.

Spray Irrigation. By Milo B. Williams, Irrigation Engineer. Pp. 40, figs. 19. Contribution from the Office of Public Roads and Rural Engineering. Feb. 14, 1917. (Department Bulletin 495.) Price, 10 cents.

Of special interest to truck and small-fruit growers of the eastern part of the United States.

Investigations of the Rotting of Slash in Arkansas. By W. H. Long, Forest Pathologist, Office of Investigations in Forest Pathology. Pp. 15. Contribution from the Bureau of Plant Industry. (Professional Paper.) Feb. 16, 1917. (Department Bulletin 496.) Price, 5 cents.

A study of the methods of brush disposal in Arkansas and of especial interest to lumbermen.

Experiments With Spring Cereals at the Eastern Oregon Dry-Farming Substation, Moro, Oregon. By David E. Stephens, Station Superintendent, Office of Cereal Investigations. Pp. 38, figs. 15. Contribution from the Bureau of Plant Industry. Feb. 19, 1917. (Department Bulletin 498.) Price, 10 cents.

Of especial interest to farmers in the Columbia River Basin.

The Mulched-Basin System of Irrigated Citrus Culture and Its Bearing on the Control of Mottle-Leaf. By Lyman J. Briggs, Biophysicist in Charge, C. A. Jensen, Assistant in Plant Malnutrition Investigations, and J. W. McLane, Laboratory Assistant, Office of Biophysical Investigations. Pp. 31, pl. 1. Contribution from the Bureau of Plant Industry. (Professional Paper.) Feb. 12, 1917. (Department Bulletin 499.) Price, 10 cents.

Of interest to citrus-fruit growers, especially in California.

A Study in the Cost of Producing Milk on Four Dairy Farms, Located in Wisconsin, Michigan, Pennsylvania, and North Carolina. By Morton O. Cooper, Scientific Assistant, C. M. Bennett, Agriculturist, and L. M. Church, Assistant. Pp. 35, figs. 8. Contribution from the Office of Farm Management, Office of the Secretary. (Professional Paper.) Feb. 20, 1917. (Department Bulletin 501.) Price, 5 cents.

Of interest to dairymen generally.

Digestibility of Some Vegetable Fats. By C. F. Langworthy, Chief, and A. D. Holmes, Scientific Assistant, Office of Home Economics. Pp. 20. Contribution from the States Relations Service. (Professional Paper.) Feb. 13, 1917. (Department Bulletin 505.) Price, 5 cents.

This bulletin records studies of the digestibility of olive oil, cottonseed oil, peanut oil, coconut oil, sesame oil, and cocoa butter, and is primarily of interest to students and investigators of food problems.

Wheat, Yields per Acre and Prices, by States, 50 Years 1866-1915. Pp. 16. Contribution from Bureau of Crop Estimates. Feb. 13, 1917. (Department Bulletin 514.) Price, 5 cents.

Suitable for general distribution.

Corn, Yields Per Acre and Prices, by States, 50 Years 1866-1915. Pp. 16. Contribution from the Bureau of Crop Estimates. Feb. 12, 1917. (Department Bulletin 515.) Price, 5 cents.

Suitable for general distribution.

An Intradermal Test for Bacterium Pullorum Infection in Fowls. By Archibald R. Ward and Bernard A. Gallagher, Pathological Division. Pp. 15. Contribution from the Bureau of Animal Industry. (Professional Paper.) Feb. 16, 1917. (Department Bulletin 517.) Price, 5 cents.

A report on the white diarrhea disease of fowls that is quite destructive, and should be serviceable to those who are interested in poultry and poultry diseases.

Annual Reports of the Department of Agriculture for the year ended June 30, 1916. (Report of the Secretary, with reports of heads of the several branches of the department.) Pp. 451. Price, 50 cents.

~~25~~ No copies available for free distribution.

MISCELLANEOUS.

List of Workers in Subjects Pertaining to Agriculture and Home Economics in the U. S. Department of Agriculture and in the State Agricultural Colleges and Experiment Stations. Corrected to January, 1917. Prepared in the Division of Publications. Price, 10 cents.

Width of Wagon Tires Recommended for Loads of Varying Magnitudes on Earth and Gravel Roads. By E. B. McCormick, Chief, Division of Rural Engineering, Office of Public Roads and Rural Engineering. Pp. 6. Feb. 12, 1917. (Circular 72, Office of the Secretary.) Price, 5 cents.

SERIALS.

Journal of Agricultural Research. (For sale only.) Vol. 8, No. 6. Feb. 5, 1917. Contents: *Sorosporella uvella* and Its Occurrence in Cutworms in America. (gz K-49.) By A. T. Speare.—Measurement of the Inactive, or Unfree, Moisture in the Soil by Means of the Dilatometer Method. (gy Mich.-5.) By George Bouyoucos.—Leafspot-Rot of Pond Lilies Caused by *Helicospirium nymphaearum*. (hb G-105.) By Frederick V. Rauid. Pp. 189-232, pls. 5, figs. 2. Price, 15 cents.

Same, Vol. 8, No. 7. Feb. 12, 1917. Contents: Studies of the Genus *Phytophthora*. (hd G-106.) By J. Rosenbaum.—*Tetrastichus bruchophagi*, a Recently Described Parasite of *Bruchophagus funebris*. (he K-50.) By Theodore D. Urbahus. Pp. 233-282, pls. 8, figs. 13. Price, 20 cents.

Same, Vol. 8, No. 8. Feb. 19, 1917. Contents: Arsenical Injury Through the Bark of Fruit Trees. (hf Mont.-4.) By Deane E. Swingle and H. E. Morris. Pp. 283-318, pls. 6. Price, 15 cents.

Same, Vol. 8, No. 9. Feb. 26, 1917. Contents: A Squash Disease Caused by *Choanephora cucurbitarum*. (hg N. C.-3.) By Frederick A. Wolf.—Discovery of Internal *Telia* Produced by a Species of *Cronartium*. (he G-107.) By Reginald H. Colley.—Effect of Irrigation Water and Manure on the Nitrates and Total Soluble Salts of the Soil. (hi Utah-5.) By F. S. Harris and N. I. Butt. Pp. 319-359, pls. 4, figs. 18. Price, 15 cents.

Same, Vol. 7, No. 13. Contents and Index of Volume 7. Pp. xv-549-556. Price, 10 cents.

NOTE.—Beginning with Volume 5, The Journal of Agricultural Research has been issued weekly and is distributed free *only* to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. *It will not be sent free to individuals.* The Superintendent of Documents will receive subscriptions for this publication, the price being \$3 per year, 52 numbers.

Experiment Station Record. Vol. XXXVI, No. 1. January, 1917. E. W. Allen, Ph. D., Editor. Pp. 1-100. Price, 15 cents.

NOTE.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution, and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

The Monthly Crop Report. Vol. 3, No. 2. February, 1917. Pp. 13-20. (Bureau of Crop Estimates.)

Contains data relating to agriculture, including estimates of acreage, conditions, yield, prices, and value of crops and live stock. For free distribution.

SERVICE AND REGULATORY ANNOUNCEMENTS—FOR SALE ONLY.

These contain *only* information, instructions, and notices governing the enforcement of food and drugs act, meat inspection, 28-hour and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. *Free distribution* is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale *only*, at prices noted.

Bureau of Animal Industry. No. 117. January, 1917. Pp. 20. Feb. 23, 1917. Price, 5 cents.

Bureau of Chemistry. Supplement. No. 21. [N. J. 4501-4550.] Pp. 74. Feb. 8, 1917. Price, 10 cents.

Office of Markets and Rural Organization. No. 19. Pp. 11. Feb. 6, 1917. Price, 5 cents.

Office of Markets and Rural Organization. No. 20. Pp. 8. Feb. 7, 1917. Price, 5 cents.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Reconnaissance Soil Survey of the San Francisco Bay Region, California. By L. C. Holmes, of the U. S. Department of Agriculture, In Charge, and J. W. Nelson, of the University of California. Pp. 112, pls. 4, fig. 1, map. (From F. O. Soils, 1914.) Price, 25 cents.

Soil Survey of Grant County, Indiana. By Lewis A. Hurst, In Charge, W. L. Watkins, and W. E. Tharp, of the U. S. Department of Agriculture, and Earl Hertenstein and Philip Middleton, of the Indiana Department of Geology. Pp. 36, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.

Soil Survey of Starke County, Indiana. By E. J. Grimes, In Charge, and Wendell Barrett, of the Indiana Department of Geology, and T. M. Bushnell, of the U. S. Department of Agriculture. Pp. 42, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.

Soil Survey of White County, Indiana. By T. M. Bushnell, of the U. S. Department of Agriculture, In Charge, and C. P. Erni, of the Indiana Department of Geology. Pp. 43, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.

Soil Survey of Sioux County, Iowa. By E. H. Smies, of the U. S. Department of Agriculture, In Charge, and W. C. Dean, of the Iowa Agricultural Experiment Station. Pp. 37, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.

- Soil Survey of Newton County, Missouri.** By A. T. Sweet, In Charge, and E. S. Vanatta, of the U. S. Department of Agriculture, and E. V. Knobel, of the University of Missouri. Pp. 41, pls. 3, figs. 2. (From F. O. Soils, 1915.) Price, 15 cents.
- Soil Survey of Ripley County, Missouri.** By F. Z. Hutton, of the U. S. Department of Agriculture, In Charge, and H. H. Krusekopf, of the University of Missouri. Pp. 36, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.
- Soil Survey of Alleghany County, North Carolina.** By R. T. Avon Burke, of the U. S. Department of Agriculture, In Charge, and H. D. Lambert, of the North Carolina Department of Agriculture. Pp. 26, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.
- Soil Survey of Cambria County, Pennsylvania.** By B. B. Derrick, In Charge, and A. L. Patrick, of the U. S. Department of Agriculture, and David C. Wimer, of the Pennsylvania State College. Pp. 32, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.
- Soil Survey of Hampton County, South Carolina.** By M. W. Beck, In Charge, and A. L. Goodman. Pp. 37, fig. 1, map. (From F. O. Soils, 1915.) Price, 15 cents.

SEPARATES.

- The Dasheen: Its Uses and Culture.** By Robert A. Young, Bureau of Plant Industry. Pp. 10, pls. 6. (Separate 689, Yearbook, 1916.) Price, 5 cents.
- Some American Vegetable Food Oils, Their Sources and Methods of Production.** By H. S. Bailey, Bureau of Chemistry. Pp. 18, pls. 4. (Separate 691, Yearbook, 1916.) Price, 5 cents.
- Stallion Legislation and the Horse-Breeding Industry.** By Charles C. Glenn, Bureau of Animal Industry. Pp. 11, pls. 4. (Separate 692, Yearbook, 1916.) Price, 5 cents.
- Fur Farming as a Side Line.** By Ned Dearborn, Bureau of Biological Survey. Pp. 18, pls. 2. (Separate 693, Yearbook, 1916.) Price, 5 cents.
- The Function of Live Stock in Agriculture.** By George M. Rommel, Bureau of Animal Industry. (Separate 694, Yearbook, 1916.) Price, 5 cents.
- The Present Status of the Sugar-Beet Seed Industry in the United States.** By C. O. Townsend, Bureau of Plant Industry. Pp. 12, pls. 5. (Separate 695, Yearbook, 1916.) Price, 5 cents.
- Farmers' Mutual Fire Insurance.** By V. N. Valgren, Office of Markets and Rural Organization. Pp. 13, figs. 4. (Separate 697, Yearbook, 1916.) Price, 5 cents.
- Meeting the Farmer Halfway.** By Carl Vrooman, Assistant Secretary of Agriculture. Pp. 13. (Separate 698, Yearbook, 1916.) Price, 5 cents.
- A Federated Cooperative Cheese Manufacturing and Marketing Association.** By Hector Macpherson and W. H. Kerr, Office of Markets and Rural Organization. Pp. 13. (Separate 699, Yearbook, 1916.) Price, 5 cents.
- The Thanksgiving Turkey.** By Andrew S. Weiant, Bureau of Animal Industry. Pp. 9, pls. 3. (Separate 700, Yearbook, 1916.) Price, 5 cents.
- Development and Localization of Truck Crops in the United States.** By Fred. J. Blair, Bureau of Crop Estimates. Pp. 31, figs. 2, maps 11. (Separate 702, Yearbook, 1916.) Price, 5 cents.
- Business Essentials for Cooperative Fruit and Vegetable Canneries.** By W. H. Kerr, Office of Markets and Rural Organization. Pp. 13. (Separate 705, Yearbook, 1916.) Price, 5 cents.
- Sewage Disposal on the Farm.** By George M. Warren, Office of Public Roads and Rural Engineering. Pp. 27, figs. 10. (Separate 712, Yearbook, 1916.) Price, 5 cents.
- The Stable Manure Business in Big Cities.** By C. C. Fletcher, Bureau of Soils. Pp. 3, pl. 1. (Separate 716, Yearbook, 1916.) Price, 5 cents.
- Cooperative Bull Associations.** By Joel G. Winkjer, Bureau of Animal Industry. Pp. 9, pls. 3. (Separate 718, Yearbook, 1916.) Price, 5 cents.



PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. (For sale only.) Vol. 44, No. 11. November, 1916. [Feb. 1, 1917.] Pp. 611-639, charts 9, figs. 17. Price, 25 cents per copy, \$2.50 per year. Payable to the Superintendent of Documents.

Special Articles: Solar and sky radiation measurements during November, 1916. By H. H. Kimball.—The Duration and intensity of twilight. By H. H. Kimball.—Von Bezold's description of twilight.—Mairan's description of anti-twilight.—Explanations of the western purple light and the eastern afterglow (Nachglühen). By A. Heim.—Twilight phenomena in Arizona, September to December, 1916. By A. E. Douglass.—Twilight colors at Mount Wilson, Cal., August to September, 1916. By W. P. Hoge.—Solar halo of September 28, 1916, at Miami, Fla. By Richard W. Gray.—Metric system for aeronautics.—Measurement of horizontal and vertical movement in the atmosphere. By M. Tenani.—Daytime and nighttime precipitation and their economic significance. By J. B. Kincer.—Frequency curves of climatic phenomena. By H. R. Tolley.—Graphic method of representing and comparing drought intensities. By T. T. Munger.—Monthly distribution of mean cloudiness over France. By G. Bigourdan.—Path of sound rays in air under influence of temperature. By V. Komerell.

Monthly Weather Review. (For sale only.) Supplement No. 4. Jan. 19, 1917. Types of Anticyclones of the United States and Their Average Movements. By Edward H. Bowie and R. Hanson Weightman. Pp. 25, figs. 7, charts 73. Price, 25 cents.

National Weather and Crop Bulletin, No. 1, January, 1917, reporting temperature, rainfall, and crop conditions throughout the United States. (Issued weekly, on Wednesday, April to October; monthly remainder of year.) Price, 25 cents a year.

Snow and Ice Bulletins for Jan. 6, 13, 20, 27, 1917. These bulletins are issued weekly during the winter season, based upon data from regular Weather Bureau stations, supplemented by reports from selected cooperative observers. Price, 25 cents a year.

JOS. A. ARNOLD,
Editor and Chief, Division of Publications.

